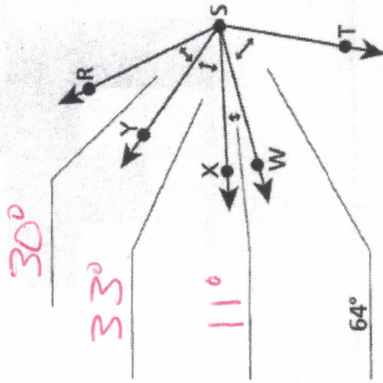


# Unit 2 Worksheet 2 (Angle Addition)

## Calculate Angle Measures

Label the diagram using the given measures. Then find the measure of angles by adding and subtracting known measures.

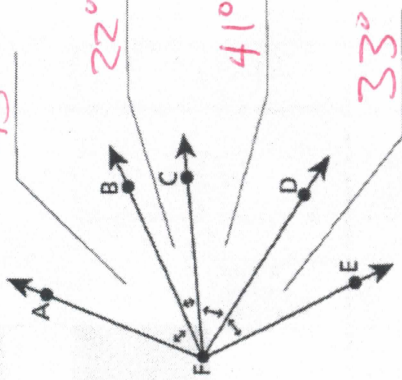


Label the angles. The first one is done for you.

- 1  $m\angle WST = 64^\circ$
- 2  $m\angle RSY = 30^\circ$
- 3  $m\angle WSX = 11^\circ$
- 4  $m\angle XSY = 33^\circ$

Find these measures:

- 5  $m\angle RSX = 63^\circ$
- 6  $m\angle RST = 138^\circ$
- 7  $m\angle TSX = 75^\circ$
- 8  $m\angle WSY = 44^\circ$
- 9  $m\angle TSY = 108^\circ$
- 10  $m\angle WSR = 74^\circ$



Label the angles.

- 11  $m\angle AFB = 45^\circ$
- 12  $m\angle BFC = 22^\circ$
- 13  $m\angle DFE = 33^\circ$
- 14  $m\angle CFD = 41^\circ$

Find these measures:

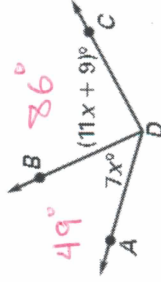
- 15  $m\angle AFC = 67^\circ$
- 16  $m\angle DFB = 63^\circ$
- 17  $m\angle AFD = 108^\circ$
- 18  $m\angle BFE = 96^\circ$
- 19  $m\angle EFA = 141^\circ$
- 20  $m\angle EFC = 74^\circ$

Name

Per. Date

Use the given information to find the indicated angle measure.

21. Given  $m\angle ADC = 135^\circ$ , find  $m\angle BDC$ .



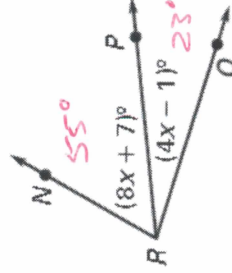
$$7x + 11x + 9 = 135$$

$$18x + 9 = 135$$

$$18x = 126$$

$$x = 7$$

22. Given  $m\angle NRQ = 78^\circ$ , find  $m\angle PRQ$ .



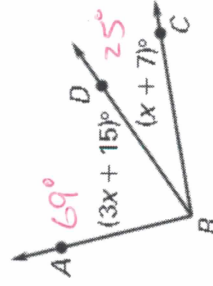
$$8x + 7 + 4x + 1 = 78$$

$$12x + 8 = 78$$

$$12x = 70$$

$$x = 6$$

23. Given  $m\angle ABC = 94^\circ$ , find  $m\angle CBD$ .



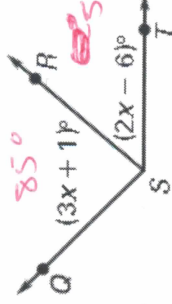
$$3x + 15 + x + 7 = 94$$

$$4x + 22 = 94$$

$$4x = 72$$

$$x = 18$$

24. Given  $m\angle QST = 135^\circ$ , find  $m\angle QSR$ .



$$3x + 1 + 2x - 6 = 135$$

$$5x - 5 = 135$$

$$5x = 140$$

$$x = 28$$